NURSING CARE OF THE CLIENT HAVING LUNG SURGERY

PREOPERATIVE CARE

- Provide routine preoperative nursing care as outlined in Chapter 7.
- Note any history of smoking, respiratory and cardiac diseases, and other chronic conditions in the nursing history. These factors may affect the response to surgery and the risk for postoperative complications.
- Provide emotional and psychologic support for the client and family. In addition to facing surgery, the client may be adjusting to a new diagnosis of cancer and the possibility that surgical intervention will be only partially successful.
- Assess and maintain nutritional status. Initiate enteral or parenteral nutrition early if intubation and mechanical ventilation will be required for an extended period. Provide frequent small feedings once extubated. Maintain patent chest tubes and a closed drainage system.
- Monitor chest tube output every hour initially, then every 2 to 4 or 8 hours as indicated. Notify the physician if chest tube output exceeds 70 mL per hour and/or is bright red, warm, and free flowing.
- If the client will return from surgery with an endotracheal tube and mechanical ventilation, establish a means of communication using hand or eye signals or a magic slate. Establishing a means of communication prior to surgery reduces postoperative anxiety at being unable to speak.
- If the client will return to ICU, introduce the client and family to the unit and any machines, such as ventilators and monitors, that will be used. The knowledge that this is an expected part of surgical recovery reduces the client’s and family’s postoperative anxiety.

POSTOPERATIVE CARE

- Assess and provide routine postoperative care as outlined in Chapter 7.
- Assess for adequate pain control, and provide analgesics as needed. Incisional pain commonly causes altered breathing patterns in the client who has undergone lung surgery.
- Frequently assess respiratory status, including color, oxygen saturation, respiratory rate and depth, chest expansion, lung sounds, percussion tone, and arterial blood gases. Maintaining adequate ventilation and gas exchange postoperatively is vital to reduce mortality and morbidity. Gas exchange may be impaired by complications of lung surgery, including pneumothorax, atelectasis, bronchospasm, pulmonary embolus, bronchopleural fistula, and acute respiratory distress syndrome (ARDS).
- Assess and document respiratory rate, depth, and lung sounds at least every 4 hours; evaluate more frequently in the immediate postoperative period or as indicated by condition. Early detection of signs of respiratory compromise or adventitious lung sounds is vital for effective intervention.

Nursing Diagnoses and Interventions

The client with lung cancer is facing invasive treatments with undesirable side effects, possibly surgery, and typically a poor prognosis for long-term survival. Nursing care needs are diverse, related to respiratory status, the cancer itself and possible metastases, and the treatment plan. Priority nursing diagnoses related to respiratory function include ineffective breathing pattern and activity intolerance. Pain and anticipatory grieving also are likely to be high-priority problems.

Ineffective Breathing Pattern

Breathing pattern and ventilation may be affected by the tumor itself or by treatment of the tumor. Thoracic surgery increases the risk due to the incision and disruption of the muscles of respiration. Maintaining effective lung ventilation is particularly important postoperatively to reexpand remaining lung tissue and prevent surgical complications.

- Pain and attempting to avoid chest movement to prevent additional pain can lead to rapid, shallow respirations and ineffective ventilation.

PRACTICE ALERT

Monitor oxygen saturation, exhaled carbon dioxide, and/or blood gas results, reporting changes from normal. Changes in levels of blood oxygen or exhaled CO₂ may be early indications of respiratory compromise.